

2018
January - February

2017 - 2018

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Les Presmyk

Recording Secretary:

Marilyn Reynolds

Treasurer:

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Membership Secretary:

Diane Braswell

Director:

Mark Ascher

Director:

Ron Gibbs

Director:

Ortrud Schuh

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Mark Markios

Parliamentarian:

Alrene Hibben

Librarians:

Janette Simister & Kathy
Heitzmann

TUCSON GEM & MINERAL SOCIETY

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EXPLORE DISCOVER SHARE

President's Page

Hello all,

I hope that everyone had a very Merry Christmas and here's wishing you all a Happy New Year. I'm excited for all the upcoming events in 2018.

December has been a very busy month with a lot to do. First the club had it's annual Christmas sale in the beginning of the month and it was a huge success as always. Thank you to all the volunteers and Vera Schlichter for coordinating everything. This year we had a new layout, thanks to Pat, I believe it made shopping a little easier for the people who came through.



Next we had our annual Christmas Party and it was a wonderful time of fellowship. We had a great turnout and the new band was great. Again I want to Thank Pat and Rose for coordinating all of this along with the volunteers. You will hear me say over and over again volunteers is what makes this such a great club to belong to, and I hope in the New Year each one of us can find something or somewhere to volunteer.

As you all are aware of and anticipating, our TGMS 2018 Show is right around the corner. It is gearing up to be another great show. This year's theme of "Crystals and Crystal Forms" shall produce some wonderful gems and minerals that will be displayed. I personally am counting down the days with excitement. Again, if you have not found a place to volunteer, call the TGMS office and find out where help is needed, because now is the time to get signed up.

Please go to our website for upcoming events and field trips; there are a lot of fun and exciting things that will make 2018 a special and great year to belong to this club. I look forward to seeing all of you at the General Meeting in January.

Mike Hollonbeck
President



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TGMS Board Meeting — June 19, 2017

Board Members Present: Ellen Alexander, Mark Ascher, Diane Braswell, Ron Gibbs, Michael Hollonbeck, Mark Marikos, Les Presmyk, and Marilyn Reynolds. **Absent:** Ortrud Schuh

Executive Manager: Pat McClain

Executive Assistant: Rose Marques

Parliamentarian: Alrene Hibben

Audience: Tim McClain

The Board Meeting was called to order by President Michael Hollonbeck at 6:06 p.m. in the TGMS meeting room.

Minutes Approval: **MOTION:** To accept the April 27, 2017 Board Meeting Minutes as written. Seconded and approved.

President's Remarks: Alrene Hibben has been appointed Parliamentarian for the Society.

Treasurer's Report: **MOTION:** To reconsider later in the meeting. Seconded and approved.

Old Business:

Paid Member: Response from TGMS's lawyer was distributed regarding the definition of a Paid Member. **MOTION:** That language as appropriate per advice of lawyer in paragraphs two and three is used regarding Active Members. Seconded.

MOTION: To amend previous motion to delete wording about attending regular Society meetings. Seconded. **MOTION:** Disclaimer to be put on the membership application as follows: "You will become an Active Member of TGMS when this form is processed which may take up to 10 days. In order to attend special events (including field trips, summer potlucks, holiday parties and the Show) as a member, the attendee must have been an Active Member with all membership dues fully paid." Seconded and approved.

Family Day: Postponed from July 22 to August 12 or 19 as time is needed to advertise and prepare for the event. There will be a meeting of those who signed up to help.

Treasurer's Report continued: Income: \$282,825.39. Expenses: \$214,859.75. Money was added to Holding Accounts. The fiscal year audit is in process. **MOTION:** To accept the Treasurer's report. Seconded and approved.

New Business:

Approval of Dick Gottfried and Peter Megaw for 2018 Show Co-Chairs: **MOTION:** To approve. Seconded and approved.

Orchid Society Yearly Lease: Current lease at \$55.00 per month expires July 30, 2017. They meet monthly except December and have been using the new large format display equipment which is not included in the lease. Other venues range from \$75.00 to \$2000.00 per night without equipment. Renting equipment runs approximately \$800.00 per night. The yearly lease requires insurance and waiver of subrogation. **MOTION:** To do agenda item 3 before we further consider item 2. Seconded and approved.

TGMS Property Rental: Items to consider for example include number of people, type of event, equipment rental, cleaning and will renting jeopardize our non-conforming status. Is being open to other clubs, but not weddings, banquets, parties, etc. okay? **MOTION:** To continue this to next Board meeting. Seconded and approved.

Orchid Society Lease continued: **MOTION:** To extend lease for next year at \$75.00 per month with notice that a future rate schedule is being established. Seconded. Amended to add includes full use of the building except large format display equipment. Seconded and approved.

General Meeting Items: Time before meetings is social time and important to members and this is restricted when doors are locked until ½ hour before the meeting starts. Need to get more members in with kids which is difficult with 7:30 p.m. meetings. Proposals: Move meeting to 6:30 p.m., open doors at 5:30 p.m., make breaks snacks again instead of dinner, and have two door prize drawings – one for juniors and one for adults after the business. These will be presented to the members with an explanation for proposing changes.

Suggestions: Will try suggestion box again. There is a bulletin board in the meeting room for items of interest to members. Scanning Rocky Mountain Federation newsletter and putting it on the website suggested as well as more Board meetings and proceeding with involvement in the Children's Museum.

Call to the Audience: No response.

Meeting was adjourned at 7:47 p.m.

Respectfully submitted by
Marilyn V. Reynolds, Recording Secretary

TGMS General Meeting — November 6, 2017

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Michael Hollonbeck at 7:00 p.m. Visitors and new members were recognized and welcomed to the meeting.

PROGRAM: William Wilkerson's topic was "From Mississippi to Arizona (and Points Beyond): The Evolution of a Mineral Collection." His mother was his 4th grade teacher and she required a project so he started collecting rocks and arrow heads from creeks and fields. His first mineral display was in the 1964 Mississippi Gem & Mineral Show. A vacation that year to the Kelly Mine in New Mexico where he found a nice aurichalcite led to his becoming a geologist. He received his B.S. and M.S. degrees in geology from the New Mexico Institute of Mining and Technology with a three-year break for service in the Army. He received his Ph.D. in geosciences in 1981 from the University of Arizona. He has worked in 40 countries and all continents except Antarctica. He retired as Vice President Exploration, Africa, for Freeport-McMoRan in November 2015. He showed photographs of collecting in New Mexico and Arizona as well as his collection which focuses on miniatures.

ANNOUNCEMENT: Diana Mueller announced that Wolfgang celebrated his 75th birthday on October 27. Members sang Happy Birthday and Diana presented a chocolate birthday cupcake to Wolfgang.

BREAK: Kerry Towe provided an early Thanksgiving dinner with turkey, ham, potatoes, gravy, rolls, cranberry sauce, green beans, cookies, pies, pumpkin and zucchini bread, and almond, pecan and peanut brittle. Thanks for the feast, Kerry!

ANNOUNCEMENT: James Cramton is State Supervisor, Rocks and Minerals, for the Science Olympiad which tests student from around Arizona in Science competition. He asked for help in getting hand samples of minerals for students to identify and in writing questions for the exam. There is a list of needed rocks and minerals in the back of the room. He can be reached at James@Cramton.com or at 401-345-9795.

OLD BUSINESS:

Approval of Minutes for September 11 and October 2, 2017 General Meetings as published in Rock Talk. Michael announced that the TGMS lawyer has required a change to the Active Membership statement in the September 11 minutes to read: You will become an "Active Member" of TGMS when the **membership** form is processed, which may take up to 10 days. In order to attend special events (including field trips, summer potlucks, holiday parties and the Show) as a member, the attendee must have been an active member with all memberships dues fully paid. **MOTION:** To approve the September minutes as corrected and the October minutes as written. Seconded and approved.

Field Trips: Kerry Towe reported that the Diamond Point trip east of Payson was not worth the drive. Blanchard Mine and Round Mountain were both good trips and it was a good time of year to go. The trip to Black Pearl for aquamarine at two locations will be November 18th. Thursday, November 30th will be the trip to Tiger Mine. December there is tentatively a trip to the Omega Mine near Helvetia.

Educational Class: Bill Shelton's topic will be "Fluorescence" on Wednesday, November 8th from 7:00 to 8:30 p.m.

Micromount Meeting: Monday, November 11th at 7:00 p.m.

TGMS Christmas Party: Wednesday, December 13th starting at 5:30 p.m. at TGMS. Members pay \$5.00 and Invited guests are \$10.00. The deadline to sign up is December 8th.

NEW BUSINESS:

14th Annual Mineral, Fossil, Jewelry, Art and Craft Sale: Saturday, December 2nd from 9:00 a.m. to 4:00 p.m. Vera Schlichter announced that those who signed up need to pay their fee. TGMS will provide the tables this year.

U of A Gem and Mineral Museum: Alex Schauss announced the Opening Date is currently set for February 1, 2020. The Board of Supervisors still needs to approve the lease to the U of A. He and Kim Filips asked for letters to be written to them to thank them for the work they have done on the building and encourage them to approve the lease. Alex will send a template with Supervisor's names and addresses to Pat to be sent out to members.

Mary Kirpes announced that the building at the Herkimer Diamonds site in New York burned down, but you can still dig for diamonds.

DRAWING FOR DOOR PRIZES: Kerry Towe, as meeting host, made the first choice. Drawing winners were Michelle Rucker, Kathy Heitzmann, Vonnie Baldwin, Alex Schauss, Kathy O'Donnell, Ortrud Schuh, Elaine Royer, Mary Kirpes, Jan Rasmussen, Bruce Kaufman, Bob O'Donnell, Cathie Logan, Ruth Edmark, Mary Ann Penkova, Warren Lazar, Jesse Engle and Lennie Wildrick.

The meeting was adjourned at 8:36 p.m.

Respectfully submitted,
Marilyn V. Reynolds, Recording Secretary

TGMS General Meeting — December 4, 2017

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Michael Hollonbeck at 7:30 p.m. Visitors and new members were recognized and welcomed to the meeting.

PROGRAM: Anna Domitrovic, Earth Sciences Curator Emerita, Arizona-Sonora Desert Museum, spoke on "Genesis of a Limestone Cave and Associated Minerology." She described the construction of the cave at the museum which was built to look like a limestone cave with both wet and dry caves. The project took five years and Anna showed pictures as she described all the steps taken to make the caves look real. Visitors are allowed to touch walls, but are then educated NOT TO TOUCH in real caves. The cave, which turned 40 on May 5, 2017, was named after Stephen House Congdon, a geologist whose family donated funds for the cave construction.

BREAK: Ortrud Schuh provided refreshments including fruit, vegetables, crackers, cheese, salami, deviled eggs and desserts. Many thanks.

OLD BUSINESS:

Field Trips: Kerry Towe reported that the Tiger Mine was a very good trip. He reminded those going on the trip to the Omega mine on December 8 that they must walk a mile to get to the mine. January trips will be to the Red Cloud Mine on the 12th and the Mission Mine on the 20th.

Educational Class: Wednesday, December 6th at 7 pm. Bill Shelton's topic will be "Crystals and Crystal Forms."

Micromount Meeting: December 11th at 7 pm.

Christmas Party: December 13th at 5:30 pm. Deadline to sign up is December 8th.

Hospitality: Hostesses/hosts are needed for May and September 2018.

Show Volunteers: For those who wish to volunteer and have not sent in the form, sign-up sheets are available on the front table.

School Visits: Dick Gottfried announced that donations to schools to help pay the cost of buses for children to come to the Show on Friday morning are tax deductible and apply for the tax credit on Arizona Income Tax. Dick needs volunteers to deliver materials to the schools.

NEW BUSINESS: None.

CALL TO THE AUDIENCE: Vera Schlichter thanked all the vendors who took part in the December 2nd Mineral, Fossil, Jewelry, Art & Craft Sale, and Pat and Tim McClain for setting it up.

DRAWING FOR DOOR PRIZES: Ortrud Schuh, as meeting hostess, made the first choice. Drawing winners were Donna Pugh, Blaize Naasz, Barb Elliott, Kim Filips, Donna Test, Linda Stauffer, Warren Lazar, Kerry Towe, Kent Stauffer, Kathy O'Donnell, Bob Royer, Anneliese Foley, Anita Nisonger and Patsy Burgess.

The meeting was adjourned at 8:30 p.m.

Respectfully submitted,

Marilyn Reynolds,
Recording Secretary

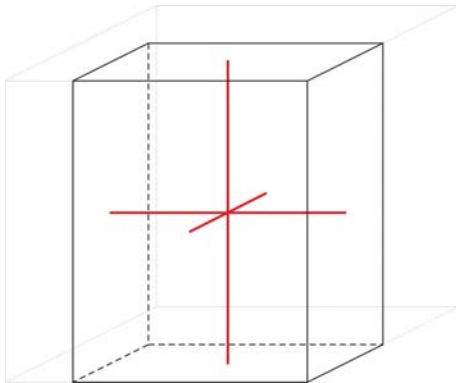


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“HOW GOOD IS YOUR IMAGINATION? Part 2”

By Anna Domitrovic

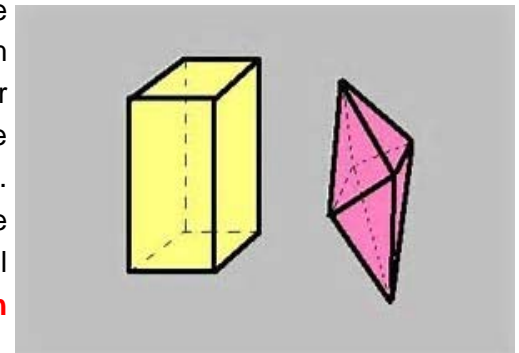
This is your final look how crystals are put together before the 2018 Show – “Crystals and Crystal Forms.” So, what have we learned thus far? We know there are six basic crystal systems – isometric, hexagonal, tetragonal, orthorhombic, monoclinic and triclinic. And we know that these designations are based on how the atoms in minerals fit together. The elemental atoms are arranged in a series of *seed crystals* whose interiors have imaginary lines, or axes, of different lengths. And that these axes meet at various angles in the center of the mineral’s *seed*. Like atoms attach to this seed and result in the macro crystals we see with our eyes. We’ve addressed the first three – isometric, hexagonal, tetragonal. Now let’s look at the remaining three – orthorhombic, monoclinic, triclinic.



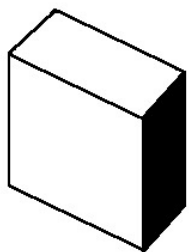
Let’s go to your imagination and visualize the **orthorhombic crystal system**. There are three axes that intersect at right angles, 90 degrees, in the center of the seed. The isometric and hexagonal systems we looked at earlier have a similar axis arrangement with axes of equal length. The difference here is that each axis is a different length. What might a mineral in the orthorhombic crystal system look like? You may see combinations of distorted octahedrons, pyramids and prisms. Some minerals that crystallize in this system include barite, sulfur and topaz. There are two models for

you to cut out and assemble – an **orthorhombic block** and a **basal orthorhomb**.

The **monoclinic crystal** is next to consider. We still have three axes of different lengths compared to one another. Two of them cross at right, 90 degree angles, while the third is perpendicular and at a 120 degree angle. Crystal shapes may resemble prismatic blocks like orthoclase feldspar or swords like gypsum. Other minerals that crystallize in the orthorhombic system include azurite, epidote and papagoite. To add to your crystal model collection we’ve provided a **basal monoclinic model** and an **octapramid**.



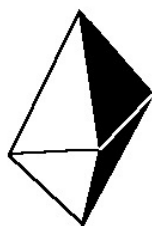
Triclinic System



Prism



Prism



Dipyramid

Lastly, there’s the triclinic crystal system. This one will really give your imagination a workout. There are only three axes, but they are all different lengths in relation to one another and they intersect at different and odd angles. There are only two subdivisions in this system, unlike the others with multiple subdivisions and classes. Basic shapes are prisms and pyramids but they are highly distorted. We’ve given you two models to assemble – an **octahedron** and a **basal pyramid**. Albite and microcline feldspars crystallize in the triclinic crystal system, as well as chalcantite, manganbabingtonite and turquoise.

How Good Is Your Imagination? - Part 2

By Anna Domitrovic



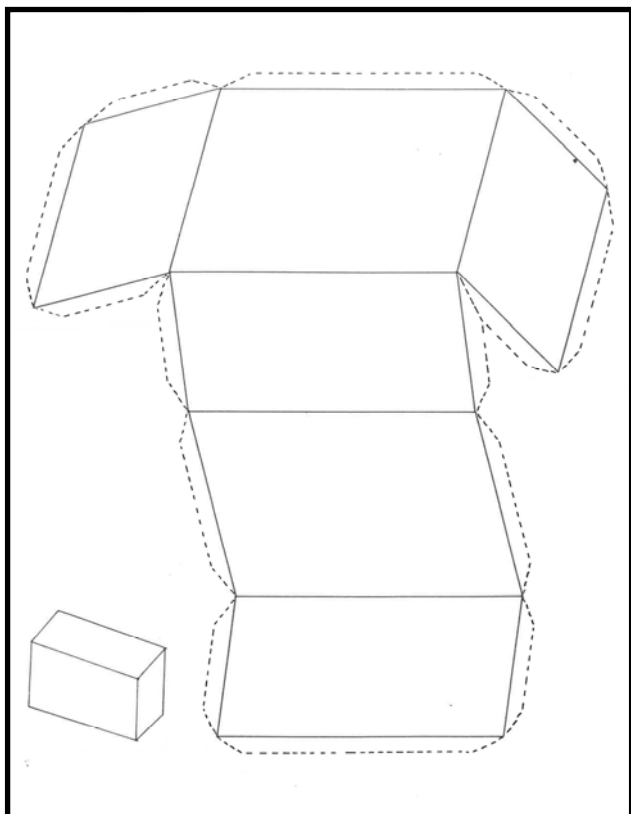
Manganbabbingtonite



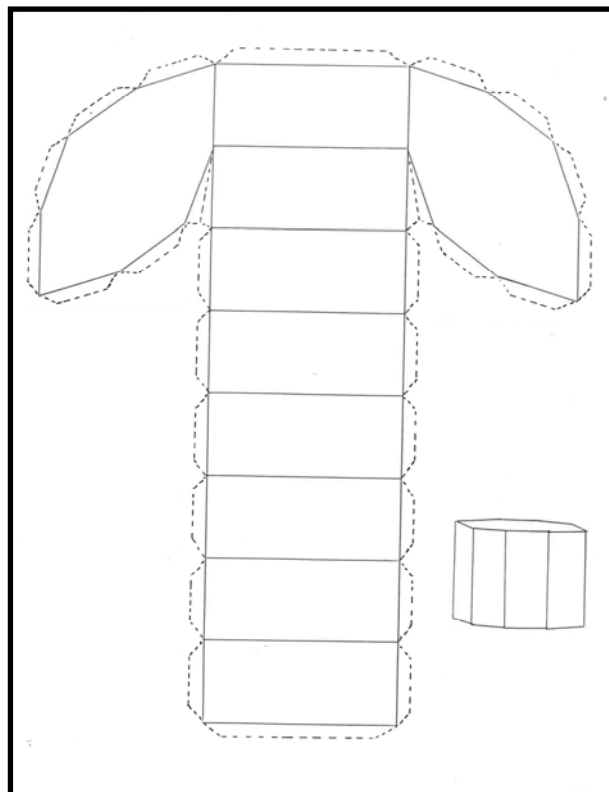
Superior Barite



Morenci Azurite



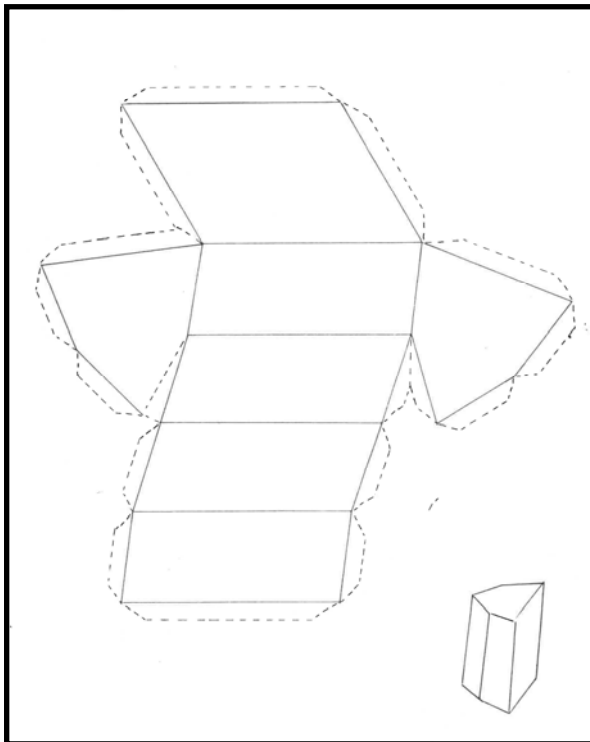
Orthorhombic Block



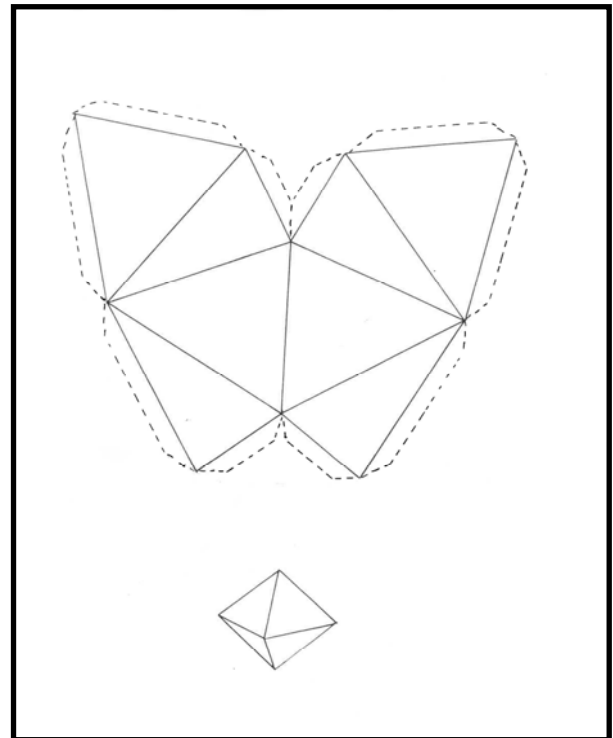
Basal Orthorhomb

How Good Is Your Imagination? - Part 2

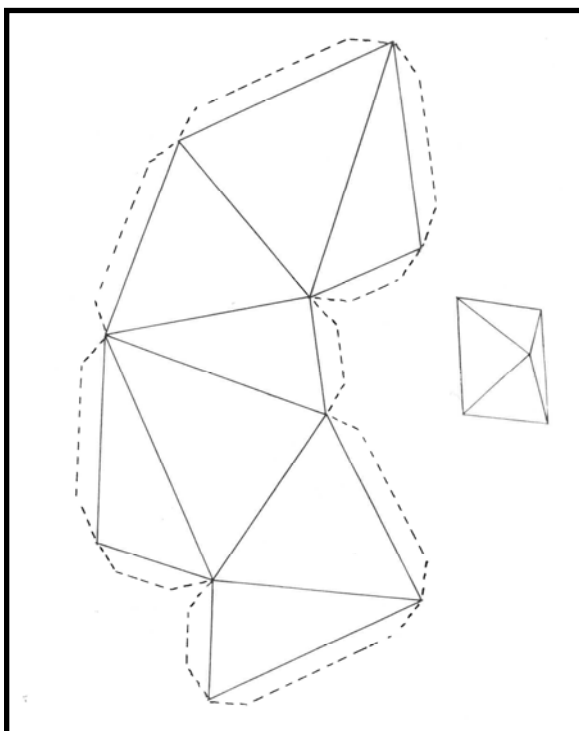
By Anna Domitrovic ... CONTINUED



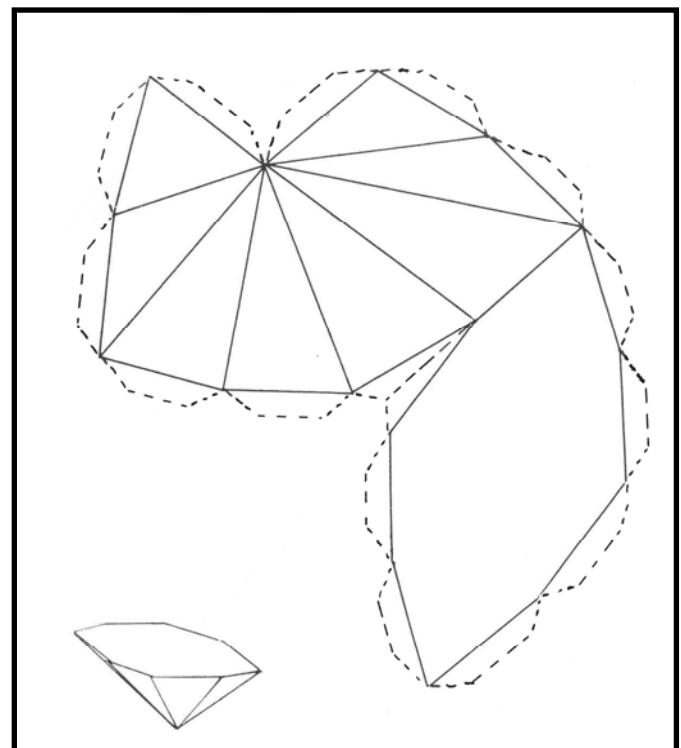
Basal Monoclinic



Octapiramid



Octahedron



Basal Pyramid

TGMS Show Co-Chairman's Remarks

By Dick Gottfried

Anticipating the 2018 Show...

This should be one of the most spectacular shows that you have ever seen. Crystals are a big draw for any mineral collector and especially for the general public. "Crystals and Crystal Forms" are so much more interesting than just rocks or minerals. These stand out on anyone's display case. Even I, the lowly fossil nut, have crystals of all sorts on my display cases and bookcases. Remember, although I will go out of my way to collect or purchase fossils, I will stop and pick up a "purty rock" when I run across it. This characteristic further qualifies me to be a member of TGMS (in addition to fossils). I started out as a "rockhound" as a child as many of you did.

I am going to enter another fossil display in the competitive exhibits. Putting the display together last year was more instructive to me than I had expected. First off, what did I want to show? The world of fossils only includes anything that ever lived anywhere on earth, at any time from say 10,000 years ago to almost 3.5 billion years ago. Dr. Schopf and his coworkers at UCLA just published their findings in *PNAS* of archaea and protobacteria from the Australian Apex Chert to be 3,465 Ma (3.465 billion years old).

Since the theme of the Show was "Mineral Treasures of the Midwest, it seemed appropriate to display fossils from Missouri and Illinois that I had personally collected when I lived in St. Louis. I had to explain why ocean fossils are found in the middle of the US continent. OK, one aspect out of the way. Now that I had my specimens picked, how should they be arranged? Just a bunch of fossils wouldn't mean anything. Arrangement would be the most important part of the display. Why not mix evolution into showmanship. I had every phylum from Protozoa through Vertebrata. Putting the fossils on an evolutionary path from the most primitive to the most complex was my bright idea. It worked.

Then, an explanation became necessary. A tree of life from the LUCA (Last Universal Common Ancestor) to the most complex (Vertebrata) explained the path of the display, showing where each of the fossils fitted into the tree. In addition, there had to be specific information about some of the fossils which were rare or unusual.

Simple, huh?

I would like to encourage all of you to enter a display of your collection. They don't have to be the rarest or most expensive or most beautiful specimens in the world. What about specimens personally collected -- they don't have to be exclusively from Arizona nor do they have to reflect the theme of the Show. This would be a great advertisement attracting new members when they see what we are doing and what they could enjoy as TGMS members.

Please remember that the Show Chairmen do need volunteers for the many tasks involved in putting on a **WORLD CLASS SHOW**. You can always call the TGMS office to find out where help is needed. As one example, I, as the School Visits Chairman (we all wear many hats in this volunteer organization), need people to distribute the coloring books and show information for the teachers. Only TUSD delivers these for us. All the other schools in Tucson have to be personally delivered by us. And this stretches from Vail School District in the South, to Oracle School District in the North, to Catalina Unified School District in the East, to Amphi School District on the West. Plus private, charter and home schools all over the area.

One other thing I would like to encourage you to do. Many schools are lacking in transportation funds for

TGMS Show Co-Chairman's Remarks**By Dick Gottfried CONTINUED**

busses at their schools. If you could contribute your Arizona school tax credit money (\$200 for single filers and \$400 for joint filers) for transportation to the Show, it would be very helpful for them. The donation can be specified for an individual school (some of the private or charter schools need help) or to the school district offices. The districts have agreed to distribute the funding for the schools in need.

We should all be proud of what we have accomplished in the past! Do not worry, with your help, this and future shows will be even more fantastic. Our Show makes February in Tucson **THE PLACE TO BE** for gems, minerals, fossils, lapidary, jewelry, tools, equipment, books and publications, and anything else related to these.

GO TGMS!

Dick Gottfried
2018 Show Co-Chair

MEANINGFUL MEMBERSHIP

Hope this message finds everyone well from an amazing Christmas and looking forward to a healthy, safe and prosperous New Year. Our membership has climbed to 429 and growing. This gives us a lot of volunteers for the Show and other events to follow in the Spring.

We have had a super productive Fall with so much going on, our Family Day, TGMS Annual sale and Christmas Party. That, combined with the monthly meetings hosting great speakers and food, also provided by our volunteer members. Unique field trips planned by Kerry Towe, has brought us to the start of a New Year.

Looking back we have to say "THANKS" to Pat and Rose for the great planning and organizing that was required for our events to happen and to the amazing response by our Members who volunteered their time and "muscle" which made the success of these "adventures" possible. They were a lot of work but so much fun watching the plans come together in such a positive way. We are finally making some headway in our goal of Community Outreach and involvement.

Now, as we move on into 2018 we have our spectacular Show to put together. Members, this is your time to shine, you are so needed to do the work that makes this Show possible. Please, look over the possibilities and pick your favorite area and every effort will be made to see that you are assigned there. Also, be sure to call the TGMS Office and find out where help is truly needed. There is something for everyone to do and all the jobs are important. You are all talented and resourceful in your own special ways so join us in February to make this year one to remember.

Diane Braswell,
Membership Secretary

IN MEMORIAM

In recent days we have lost two good friends of the Tucson Gem and Mineral Society.

Sharon Panczner, a past TGMS member, volunteer, and past Mineral Dealer Chair.

Diana Weinrich, the wife of Dan Weinrich and his partner in Weinrich Minerals,

longtime dealer in the Tucson Gem and Mineral Show®.

Our condolences go out to their families and close friends; they will be missed.

ROCK TALK

Encouraging the interest and study in geology, mineralogy, lapidary and allied earth science.

FROM:

T.G.M.S.
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TUCSON, ARIZONA 85716



TO:

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Twitter: [@TGMSociety](https://twitter.com/TGMSociety)

YouTube: [TGMS Video](https://www.youtube.com/TGMSVideo)

PURPOSE: To encourage interest and study in geology, mineralogy, lapidary, and allied earth sciences.

Meetings: Usually the first Monday of the month, starting at 7:00 p.m., except September (second Monday because of the Labor Day holiday), June-August (potlucks). The TGMS facility address is: 3727 East Blacklidge Drive, Tucson, Arizona 85716

The Tucson Gem and Mineral Show ®:

The second full weekend in February, starting with Thursday.

Affiliations: American Federation of Mineralogical Societies, Inc. (AFMS), Rocky Mountain Federation of Mineralogical Societies (RMFMS), Visit Tucson, Tucson Metropolitan Chamber of Commerce (TMCC), Greater Oro Valley Chamber of Commerce

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